

SIMANF{R}

Model for *Pinus pinaster mesogeensis* stands Mediterranean Iberian Peninsula (Spain)

Model

Ppinaster_m_stand_iberian_peninsula_v01.py

Model description

- Specie: *Pinus pinaster* Ait. subsp. *mesogeensis*
- Spanish Forest Inventory (SFI) code: 26
- Geographical area: Mediterranean Iberian Peninsula

Model type

- Category: stand growth
- Model level: stand
- Reproduction methods: seedling forest
- Stand structure: even-aged stands
- Species composition: monospecific stands
- Forest origin: natural

Model requirements and recommended use

- Initial inventory requirements: age, dominant height, basal area and density of the plot
- Geographical area: mediterranean iberian peninsula, closer places and another places with similar characteristics (assuming differences)
- Stand type: monospecific stands, resinated or not
- Execution recommended time: 5 years executions (survival and growth equations developed by using that criteria)
- Site Index is defined as top height at a base age of 80 years



Figure 1: *Pinus pinaster*, by Felipe Castilla, website <http://www.arbolapp.es/especies/ficha/pinus-pinaster/>



Figure 2: Details of *Pinus pinaster*, by 'A description of the genus *Pinus*', Aylmer Bourke Lambert

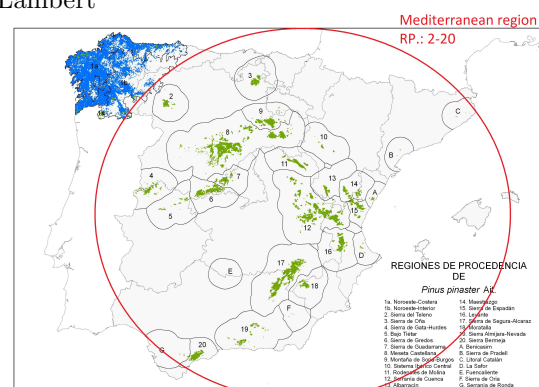
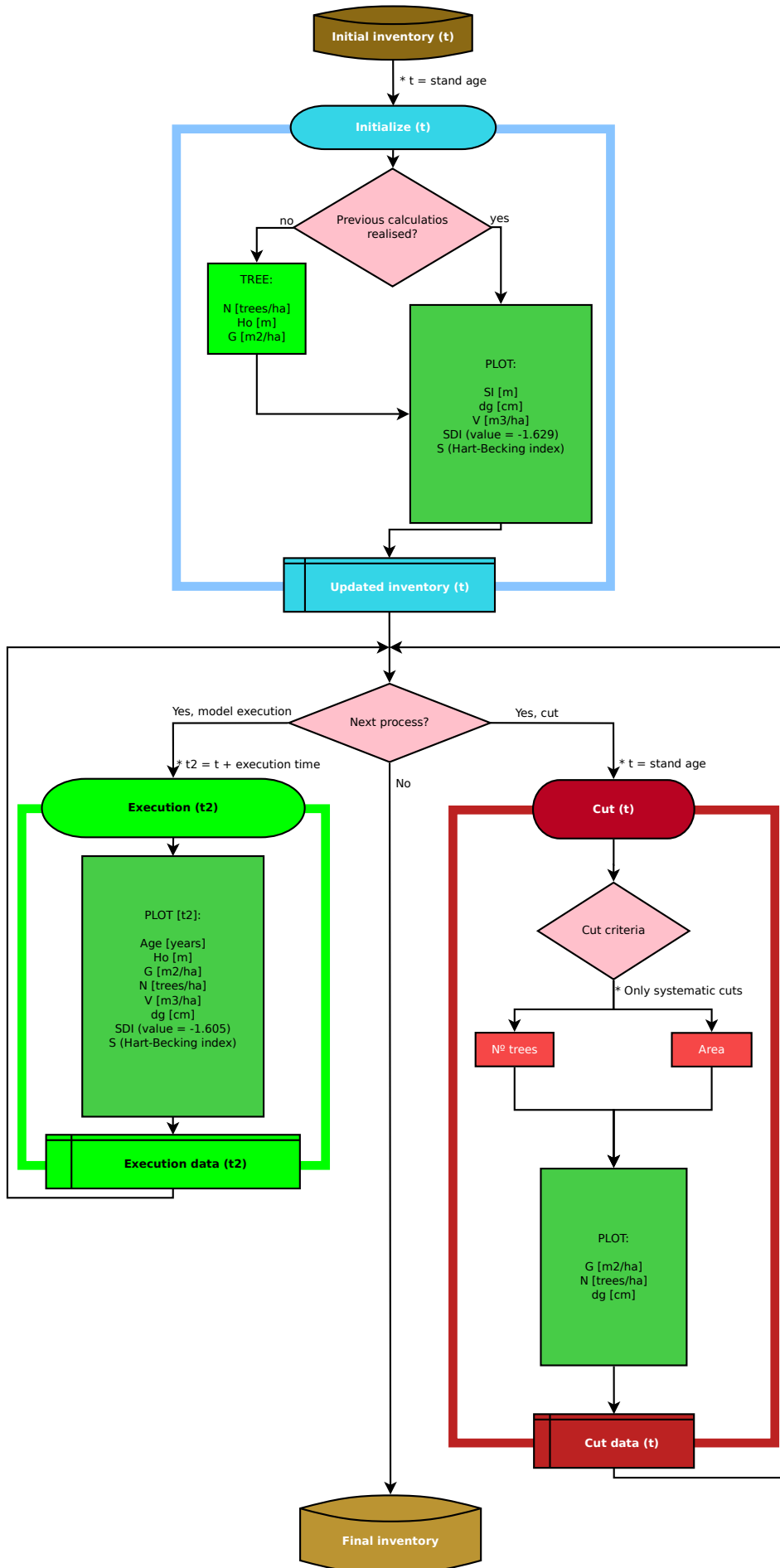


Figure 3: Provenance regions of *Pinus pinaster* in Spain, by MAPA

Bibliography

Model components:

- **Calculations by using tree data** (just in cases when that information is not available at the initial inventory):
Density, Basal Area and Dominant Height
- **Site Index equation:**
Bravo-Oviedo A, del Río M, Montero G (2004). Site index curves and growth model for Mediterranean maritime pine (*Pinus pinaster* Ait.) in Spain. *Forest Ecology and Management*, 201(2-3), 187-197
- **Dominant Height Growth equation:**
Bravo-Oviedo A, del Río M, Montero G (2004). Site index curves and growth model for Mediterranean maritime pine (*Pinus pinaster* Ait.) in Spain. *Forest Ecology and Management*, 201(2-3), 187-197
- **Survival equation:**
Bravo-Oviedo A, del Río M, Montero G (2004). Site index curves and growth model for Mediterranean maritime pine (*Pinus pinaster* Ait.) in Spain. *Forest Ecology and Management*, 201(2-3), 187-197
- **Basal Area Growth equation:**
Bravo-Oviedo A, del Río M, Montero G (2004). Site index curves and growth model for Mediterranean maritime pine (*Pinus pinaster* Ait.) in Spain. *Forest Ecology and Management*, 201(2-3), 187-197
- **Initial and Growth Volume equation:**
Bravo-Oviedo A, del Río M, Montero G (2004). Site index curves and growth model for Mediterranean maritime pine (*Pinus pinaster* Ait.) in Spain. *Forest Ecology and Management*, 201(2-3), 187-197
- **Value for Reineke Index equation:**
del Río M, López E, Montero G (2006). Manual de gestión para masas procedentes de repoblación de *Pinus pinaster* Ait., *Pinus sylvestris* L. y *Pinus nigra* Arn. en Castilla y León (No. 634.9560946 R585). Junta de Castilla y León, Castilla y León (España). Consejería de Medio Ambiente Ministerio de Educación y Ciencia, Madrid (España) Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria, Madrid (España)
- **Quadratic Mean Diameter and Hart Index equation:**
Standard equations
- **Harvest equations:**
Harvest equations developed by using equations mentioned before.
CUTS BY VOLUME NOT AVAILABLE YET.
- **Quadratic Mean Diameter after thinning equation:**
Bravo-Oviedo A, del Río M, Montero G (2004). Site index curves and growth model for Mediterranean maritime pine (*Pinus pinaster* Ait.) in Spain. *Forest Ecology and Management*, 201(2-3), 187-197



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Interest Links

SIMANFOR - Support system for simulating Sustainable Forest Management Alternatives. Accessed 11 May 2021, in <https://www.simanfor.es/>

iuFOR - Sustainable Forest Management Research Institute UVa-INIA. Accessed 11 May 2021, in <http://sostenible.palencia.uva.es/>

ETSIIAA Palencia - Higher Technical School of Agricultural Engineering of Palencia. Accessed 11 May 2021, in <http://etsiiaa.uva.es/>

UVa - University of Valladolid. Accessed 11 May 2021, in <https://www.uva.es>

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